740 53 SWIMMING POOL -- INDOOR (SQ.M./SF) (including poolside deck and bathhouse)

Project Review: Base MWR representatives, EFD, NAVFAC HQ, BUPERS (Pers-656D)
Design Criteria: *(Military Handbook is not currently available; see NAVMILPERSCOMINST 1710.6A)*

1. **GENERAL**. See General Notes to 740 series category codes for General Instructions regarding facility allowance planning procedures.

   The planning criteria presented below for Category Code 740 53 are also applicable to Category Code 750 30, Outdoor Swimming Pool -- Installation.

2. **DEFINITION**. The primary purpose of Swimming Pools is to support physical readiness programs as well as instructional, informal and intramural activities, and to serve the recreational needs of active-duty military personnel and their spouses and children, retirees and DoD authorized civilians. With the exception of extra-small and small bases, each installation must provide either an all-hands indoor or outdoor pool, or access to aquatic resources in the local community to meet patron recreational demands. All on-base aquatics facilities must be handicap accessible.

   The local Command has discretion over the decision to provide indoor or outdoor Swimming Pools. However, in general, large installations requiring more than one Swimming Pool to meet patron demand, may develop only one indoor pool. Additional indoor pools may be developed on the basis of facility planning criteria specified for Combat Training Pool/Tank under category code 179 55.

   In addition to the swimming pool, special features such as diving wells, water slides and wading pools (see relevant criteria and NAVMILPERSCOMINST 1710.6A) and zero-depth entry areas may be incorporated in the facility if there is sufficient local justification.

   At smaller installations, the potential for shared use of a single pool for both recreational and training needs should be examined.

3. **RELATED FACILITIES**. Consideration should be given to collocating the Swimming Pool with related recreational facilities in order to (i) take advantage of potential savings in space requirements and operating costs, and (ii) provide users with the increased convenience of clustered facilities. These related recreational facilities include:

   - 740 43 Gymnasium
   - 740 45 Fitness Center
   - 740 84 Indoor Playing Courts
   - Other MWR recreational and foodservice facilities such as Clubs and Recreation Centers.

4. **DEMAND**. Swimming Pool facilities are sized on the basis of the peak hour demand at each installation, as follows:

   a) Use projected base loading data to determine the population for each significant population category, as listed in Table 740 53A.

   b) Calculate peak hour demand by multiplying the population for each category by participation factors found in Tables 740 53A. Add the demand for all population categories to derive Total Demand for each functional component. Adjust the calculated Total Demand as indicated in Table 740 53A for installations with alternative on-base recreational swimming facilities such as lakes or beaches.

   c) The determination of the length of the pool is a local Command decision which should be based primarily on patron demand and programmatic considerations. A 25-meter length pool is sufficient to satisfy most fitness and recreational swimming needs. The advantage of a 50-meter length is that the pool may be divided up

into 2 or 3 areas and utilized simultaneously for different programs. For example, given sufficient demand, a 50-meter length pool divided into three separate areas may be used simultaneously for recreational swimming, lap swimming for fitness training, and an instructional class in life-saving techniques.

d) Calculate the number of lanes required by dividing the Total Demand by the maximum capacity per hour per lane, indicated in Tables 740 53B or 740 53C, depending on whether the local Command opts for a 25 meter length or 50 meter length Swimming Pool. In general, the development of Swimming Pools with fewer than 6 lanes and more than 10 lanes is not recommended.

e) Where a beach area is available, a beach bathhouse of 325 sq.m. (3,000 SF) may be provided. If the beach is developed in lieu of one of the swimming pools authorized, the beach bathhouse may be sized as for the swimming pool bathhouse.

Notes for Demand Calculation -- Table 740 53A:

(1) Population numbers should be consistent with projected base loading data. Officers are O-1 through O-10 and enlisted are E-1 through E-9. Civilians are authorized DoD employees. Retirees are all military retirees within a 30-minute drive of the installation.

For facility planning purposes at installations with deployable forces, the active duty demand population is comprised of all the non-deployable population, plus two-thirds of the deployable population, to reflect time away on deployment. However, calculation of the deployable population may be adjusted based on the actual deployment experience at individual installations.

(2) The participation factors used in the table may be revised periodically by NAVFAC HQ and BUPERS, and the most current figures must be used in all demand calculations.

(3) Dependent population data may be obtained from the base MWR or Housing Offices.

TABLE 740 53A
SWIMMING FACILITY DEMAND CALCULATION

Note	Population Category	Population (per Base Loading)	x	Participation Factor	=	Peak Hour Demand	
(1), (2)	Enlisted	.....	x	.0043	=	.....	users
(1), (2)	Officers	.....	x	.0045	=	add	users
(1), (2)	Retirees	.....	x	.0025	=	add	users
(1), (2)	Authorized Civilians	.....	x	.0015	=	add	users
(1), (2), (3)	Dependents	.....	x	.0093	=	add	users
		Total Demand (rounded to the nearest whole unit)			=	.....	users
		adjustment for installations with alternative on-base swimming facilities (such as developed beaches or lakes)				subtract 30	users
		Total Demand (rounded to the nearest whole unit)			=	.....	users

TABLE 740 53B
SWIMMING POOL CAPACITY CALCULATION -- 25 METER LENGTH

Total Demand (rounded to the nearest whole unit)	=	.....	users
Divide by maximum capacity per hour per lane (for a 25 meter length Swimming Pool)		divide by 4	users
Total number of lanes for a 25 meter length Swimming Pool	=	.....	lanes

TABLE 740 53C
SWIMMING POOL CAPACITY CALCULATION -- 50 METER LENGTH

Total Demand (rounded to the nearest whole unit)	**=**	**.....**	**users**
Divide by maximum capacity per hour per lane (for a 50 meter length Swimming Pool)		**divide by 6**	**users**
Total number of lanes for a 50 meter length Swimming Pool	**=**	**.....**	**lanes**

5. **SPACE ALLOWANCE**. In addition to determining the length of the pool and the number of lanes, a Swimming Pool facility requires an adequately sized bathhouse and poolside deck area. Space allowance criteria for these support facilities are presented in Table 740 53D. Refer to NAVMILPERSCOMINST 1710.6A for critical dimensional criteria for swimming pools and related facilities.

TABLE 740 53D
SPACE ALLOWANCES FOR SWIMMING POOLS

Note	Table	Functional Component	# Units	X	Space Allocation Factor	=	Total Net Area	Min. Net Area sq.m.(SF)
		ACTIVITY AREA						
(1), (2)	740 53B	Swimming Pool -- 25 meter length	.....	X	63sq.m.(674 NSF) per lane	=	.....	
(1), (2)	740 53C	Swimming Pool -- 50 meter length	.....	X	125sq.m.(1,348 NSF) per lane	=	.....	
		Poolside Deck Area						
		for Indoor Pool			100% total Net Area lanes	=	.....	
		for Outdoor Pool			300% total Net Area lanes	=	.....	
		ACTIVITY SUPPORT						
		Bathhouse						
		Lockers, Showers, Toilets			33.33% total Net Area lanes	=	.....	
		Control Desk	.....	X	4sq.m.(45 NSF) per station	=	.....	4(45)
		Administrative Office	.....	X	11sq.m.(120 NSF) per office	=	.....	11(120)
		Lifeguard Office	.....	X	4sq.m.(40 NSF) per station	=	.....	7(80)
		Storage (equip., supplies, etc.)	.....	X	2sq.m.(20 NSF) per lane	=	.....	9(100)
		Subtotal Activity Support Areas				=	.....	
		BUILDING SUPPORT						
		Entrance/Circulation/Housekeeping Supplies/Janitor's Closet/ Structure/Partitions			10-15% X subtotal Net Area Activity Support Areas	=	.....	
		Mechanical/Electrical/Communication Equipment Space			5-10% X subtotal Net Area Activity Support Areas	=	.....	
		Pool Plant Room (pump, filter, etc.)			20% total Net Area lanes	=	.....	
		Chemical Storage Room(s) [separate rooms for different chemicals, as per safety requirements]			6sq.m.(60 NSF) per room	=	.....	6(60)
		TOTAL FACILITY ALLOWANCE FOR SUPPORT FACILITIES (Gross Area)				=	.....	

Notes for Space Allowance -- Table 740 53D:

(1) The determination of the length of the pool is a local Command decision which should be based primarily on patron demand and programmatic considerations.

(2) Minimum lane width of 2 meters (7') is recommended, with an additional 0.5 meter (1'-6") outside lanes on both sides of the swimming pool.

sq.m. = square meter

NSF = Net Square Feet
GSF = Gross Square Feet
Minimum or Maximum NSF = Minimum or maximum space allowance to be provided for the particular function or activity.

6. **ILLUSTRATIVE SPACE PROGRAMS**. Two space programs for a 6-lane, 25-meter and an 8-lane, 50-meter Swimming Pool facility are presented to illustrate possible breakdowns of the overall space allowances into their primary functional components, with their respective sizes and capacities. These space programs are for illustrative purposes only.

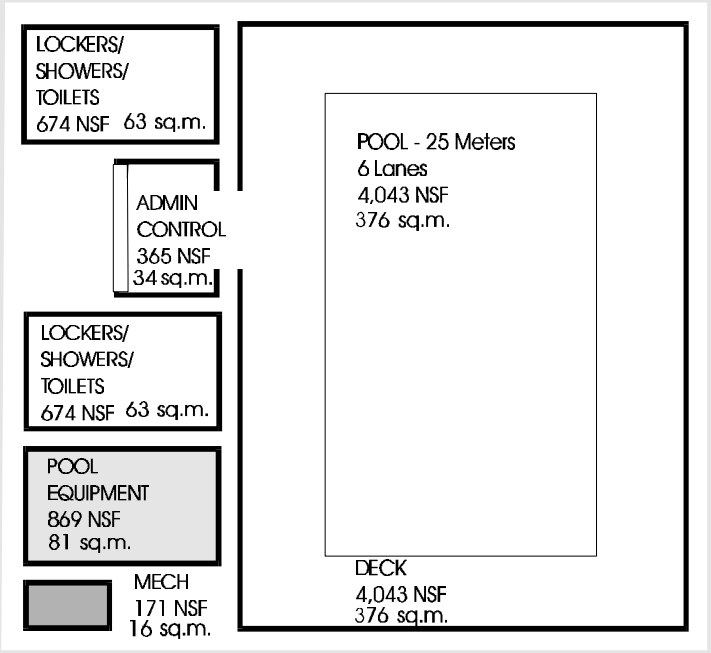
7. **SAMPLE LAYOUT DIAGRAM**. A layout diagram is presented for a 6-lane, 25-meter length Indoor Swimming Pool facility. This diagram is an example of the composition of such a facility in terms of its functional components, their respective sizes and adjacencies. The layout diagram is for illustrative purposes only.

SWIMMING POOL (Category Code 740 53/750 30)

Sample Space Programs

Functional Component/ Sub-Component	Space Allocation Standard		*25 METER POOL* Capacity	Net sq.m.	Sub-Total Net sq.m.	*50 METER POOL* Capacity	Net sq.m.	Sub-Total Net sq.m.
INDOOR ACTIVITY AREA								
Swimming Pool -- 25 meter length	63	Net sq.m. per lane	6	378	378			
Swimming Pool -- 50 meter length	125	Net sq.m. per lane				8	1,000	1,000
Deck Area	100%	total Net sq.m. lanes		378	378		1,000	1,000
Subtotal Area of Footprint for pool and deck					**756**			**2,000**
ACTIVITY SUPPORT								
Bathhouse (lockers, showers, toilets)	######	total Net sq.m. lanes		126			333	
Control Desk	4	Net sq.m. per station	1	4		1	4	
Administrative Office	11	Net sq.m. per office	1	11		1	11	
Lifeguard Room	4	Net sq.m. per station	2	8		3	12	
Storage (equipment, supplies, etc.)	2	Net sq.m. per lane	6	12		8	16	
					161			**376**
BUILDING SUPPORT								
Entrance/Circulation/Housekeeping Supplies/Janitor's Closet/ Structure/Partitions	10-15%	total Net sq.m. Activity Support		24	24		38	38
Mechanical/Electrical/Communication Equipment Space	5-10%	total Net sq.m. Activity Support		16	16		19	19
Pool Plant Room (pump, filter, etc.)	20%	total Net sq.m. lanes		76	76		200	200
Chemical Storage Room	6	Net sq.m. per room	1	6	6	1	6	6
TOTAL FACILITY ALLOWANCE FOR SUPPORT FACILITIES (Gross sq.m.)					**283**			**639**

Maximum pool capacity @ 2 net sq.m. (pool and deck area) per person for rec	**38**	**persons**	**100**	**persons**
Maximum pool capacity @ 4 swimmers per lane in 25-meter pool or 6 swimme per lane in 50-meter pool for lap swimming	**24**	**persons**	**48**	**persons**



LAYOUT DIAGRAM -- INDOOR SWIMMING POOL
25 Meters

90121SPCDR

740 89 BATHHOUSE (sq.m./SF)

(Included in CC 740 53 SWIMMING POOL - INDOOR sizing standards)